

FISCAL YEAR 2003
ANNUAL REPORT TO THE OFFICE OF MANAGEMENT AND BUDGET
- STANDARDS USE AND PARTICIPATION -

U. S. DEPARTMENT OF ENERGY

Standards Management: The Department of Energy (DOE) implements the federal guidance and requirements of OMB Circular A-119 (OMB A-119) and the statutory requirements of Public Law (PL) 104-113 (15 USC 272) regarding the use of voluntary consensus standards (VCSs) through specific Departmental directives (policies, orders, requirements, guides, and technical standards) and supporting programs and management systems. The Department's Integrated Safety Management System (ISMS - Internet address is <http://tis.eh.doe.gov/ism/>) establishes the overall business processes for DOE and its contractors to incorporate management of DOE's environment, health and safety matters for workers, the public and the environment as an integral part of our technical and business management, using standards as one of its primary tools.

The Department's overall standards activities are managed through the DOE-wide Technical Standards Program (TSP), established under the DOE Standards Executive within the Office of Environment, Safety and Health. (The TSP Internet address is <http://tis.eh.doe.gov/techstds/>). The TSP provides the means for DOE to fully implement the policy and requirements of PL 104-113 and OMB A-119, and establishes a focus from which to promote the use of VCSs across DOE and to support active participation with Standards Development Organizations (SDOs).

The TSP also manages the development and maintenance of DOE internal standards, where SDO standards are not available to meet unique DOE technical needs and cannot be readily developed by an SDO. The TSP has procedures for converting DOE Technical Standards to VCSs, and has active interfaces and initiatives with ASCE, ANS and ASTM at present.

The TSP also charters "Topical Committees" (TCs) that coordinate standards development activities in specific technical areas across DOE, and with counterparts in other federal agencies, industry, academia, and national and international SDOs. The TCs are comprised of subject matter experts from across the DOE community, and encompass such diverse areas as laboratory accreditation, metrology, fire protection, environmental management systems, meteorology, biota dose assessment, chemical safety, emergency management, and nuclear safety training. DOE TCs may include observers and participants from other federal agencies, industry, academia, and SDOs.

The DOE Standards Executive actively participates with the Interagency Committee on Standards Policy (ICSP), with support from the DOE TSP. The DOE, Nuclear Regulatory Commission (NRC), and National Institute of Standards and Technology (NIST) conduct standards coordination meetings with key SDOs to review common standards needs and activities, identify issues, and coordinate development efforts. The DOE, NRC, and NIST also continue to cooperate in sponsoring U.S. participation with ISO's TC85 Nuclear Energy committees and working groups (presently under ASTM administration).

The DOE Information Technology (IT) Standards Program, in coordination with the DOE TSP, tracks IT standards development, coordinates with subject matter experts, adopts new or retires outdated standards, and maintains a Profile of Adopted Standards - primarily international and national standards (at http://cio.doe.gov/ITReform/ArchitectureStandards/repository_info.htm).

DOE's Office of Energy Efficiency and Renewable Energy (EERE), Codes and Standards Program (Internet address is http://www.eren.doe.gov/buildings/codes_standards/aboffmsn.htm) also conducts a legislatively mandated, multi-year effort to improve the energy efficiency in the Nation's buildings through energy efficiency standards, codes and guidelines for buildings, building equipment, and appliances. The Department is required to promulgate amended energy efficiency standards designed to achieve the maximum improvement in energy efficiency that the Secretary determines are technically feasible and economically justified. The Department's codes and standards development efforts in these areas are closely coordinated with SDOs and include early involvement of industry and state stakeholders and relevant federal agencies.

Under the President's National Energy Policy, DOE's Hydrogen, Fuel Cells & Infrastructure Technologies Program in EERE integrates activities in hydrogen technologies, including codes and standards (Internet address is: <http://www.eere.energy.gov/hydrogenandfuelcells/codes/>). The Program's objectives include working with national and international code and standards development organizations, code officials, industry experts, and national laboratory scientists to draft new model codes and equipment standards that cover emerging hydrogen technologies for consideration by the various code enforcing jurisdictions, and helping coordinate codes and standards activities to avoid duplication of effort.

Standards Use: DOE "uses" VCSs extensively in managing, operating, and regulating our diverse sites, laboratories, operations, facilities, and activities – over a range that includes nuclear weapons production, energy research, oil storage, hydroelectric power, accelerator operations, nuclear facility decommissioning, and fusion experiments. VCSs are consulted, referenced and applied in mission-related design, procurement, construction, operations, maintenance, emergency operations, and decommissioning efforts; in environment, safety and health management; in DOE research and development activities; and in security and safeguards programs.

For DOE reporting purposes, "use" means that a VCS has been cited, referenced, applied, or otherwise incorporated into DOE requirements, operations and activities for the first time, or in continued use, as noted below. For Fiscal Year 2003, DOE documented the use of 1,187 different VCSs. A VCS that is used by several different organizations or in different versions is reported as a single use by DOE. DOE also internally tracks the use of consortia standards (about 35 – all information technology), but these are not reported.

The VCSs reported "used" by DOE in the annual review are compiled from several sources that cite VCSs as acceptable means to meet requirements, as guidance, or as essential references for DOE and DOE contractors. These sources include: DOE Regulations (as an acceptable means to meet specific DOE requirements or as a reference); DOE Directives - Policy, Orders, Manuals, Guides (as an acceptable means to meet specific DOE requirements or as a reference); DOE Contracts (Management and Operations, Management and Integration - as a committed

means to carry out contracted DOE missions and functions); and DOE safety basis documents (stated as a commitment or applied reference in DOE documented safety analyses, including safety analysis reports, standards/requirements identification documents, “work smart” standards sets, process safety management, and hazards analyses).

Other extensive uses of VCSs at DOE that are not documented and reported include: procedures writing; establishing safety criteria (e.g., for worker job task analyses, fire protection, nuclear criticality safety, nuclear facility safety); as supporting references or cites in internal DOE Technical Standards; and personal or contractor uses and participations that are not on behalf of DOE.

Very few VCSs (none for this reporting period) are mandated through DOE rules, regulations or DOE Directives. However, DOE is an agent in the development and update of certain legislatively mandated building and appliance energy efficiency codes and standards, and in supporting and facilitating the development of hydrogen technology codes and standards. DOE more typically will cite specific VCSs as “acceptable means” for implementing requirements, and allow the use of equivalent alternatives. Very few, if any, VCSs are cited in DOE procurements (outside of Prime Contracts), since most procurements are “off-the-shelf.” DOE procurements for “Prime Contracts” (e.g., for operating a National Laboratory) are typically performance-based, and do not specify down to the standards level in their lists of requirements.

Summary: OMB A-119 requires that federal agencies report certain standards use and standards participation information to OMB via NIST. The DOE report is provided as Attachment 1, “FY 2003 DOE Annual Agency Report to OMB, Required Information for Agency Annual Report to NIST on Standards Use and Activities”. The following information summarizes that report:

DOE did not mandate the use of any government-unique standards in lieu of suitable voluntary consensus standards during FY 2003. DOE identified no additional voluntary consensus standards that have been substituted for government-unique standards.

DOE participated with 85 non-government standards bodies (about 56 are ANSI-affiliated VCS standards bodies). There were 674 agency employees participating in VCS activities (These individuals were involved in 1364 activities due to multiple participations.) DOE used 1,187 VCSs on a continuing basis during FY 2003.

ATTACHMENT 1

FY 2003 DOE Annual Agency Report to OMB

The following information (with explanatory notes) has been developed for the OMB Annual Report and has been submitted to NIST to: (1) report the use of voluntary consensus standards within DOE, and: (2) report participation in standards development activities on behalf of DOE (by DOE staff and DOE contractor staff on behalf of DOE):

Required Information for Agency Annual Report to NIST on Standards Use and Activities

1. As required by P.L. 104-113, you **must** highlight all instances where the agency used government-unique standards in lieu of voluntary consensus standards during FY 2003. For each instance, you must identify the specific government-unique standard used as well as the voluntary consensus standard that was not selected. Equally as important, you must clearly state your agency's rationale for such use.

NONE for DOE for FY 2003

In addition, your report for FY 2003 should also include:

1. A list by name and acronym of the voluntary consensus standards bodies in which your agency participated during the reporting period.

See Attachment 2, "Standards Development Organizations (SDOs) with DOE Or DOE Contractor Participation"

NOTE: FY 2003 count: 85, 56 ANSI-affiliated

2. The number of agency employees participating in voluntary consensus standards activities during this period.

674 for DOE FY 2003

3. The number of voluntary consensus standards that your agency used during FY 2003 based upon procedures set forth in Sections 11 and 12 of the Circular.

1187 for DOE FY 2003 (1189 for FY 2002)

NOTES: The overall count remained essentially the same for FY 2003. There are also about 35 consortia standards used by DOE (but not included in the count), primarily by the DOE IT Standards Program.

4. A description of how your agency currently reports its use of voluntary consensus standards. Specifically, please provide your agency's answers to the following questions:

- Does your federal agency report (a) only the first-time use of standards, (b) continued uses of standards, or (c) both first-time and continued uses of standards?

DOE reports: (c) both first-time and continued uses of standards.

There are perhaps over 80 DOE federal and contractor organizations using standards. Many are using a particular standard for the first time, others are discontinuing its use, and still others are continuing its use. It would be highly impractical and not very useful to discern use in these circumstances.

- Does your agency report (a) the total number of standards it uses or (b) each instance where the agency uses (i.e., references) a standard?

DOE reports: (a) the total number of standards it uses.

This total is based on counting a particular standard once, even if it is used in multiple versions, multiple times, with multiple organizations and functions. Reporting each instance where a standard is used would add several thousand to the DOE count.

- Does your agency report multiple editions of a single standard as one standard used or as multiple standards used?

DOE reports the use of multiple versions of a standard as a single use.

Many DOE facilities and operations are designed, built and operated under a safety basis document that incorporates the then current version of a pertinent standard. As new activities are initiated (or old ones modified), newer versions of that standard may come in to use. When older facilities and operations are modified, they may not be amenable to the application of newer standards versions (called a backfit), since it may not be technically feasible or the costs of related changes (e.g., safety reanalysis, reconstruction) may be prohibitive.

- Does your federal agency report standards that it uses for guidance purposes (as opposed to compliance purposes)?

Yes, DOE reports standards used as guidance (as well as those used for compliance purposes).

Standards cited as guidance are reported where they are used in whole or in part to support DOE missions and functions. These are generally cited in DOE requirements as acceptable means to meet a requirement, and as technical references essential to implementing a requirement or standard. While standards cited in a DOE directive as guidance (or references) are not mandated for use, any alternative generally needs to be justified.

- Does your agency report use of standards from non-ANSI-accredited standards developers including industry consortia?

No, DOE does not report the use of non-ANSI-accredited standards.

However, DOE does track the use of consortia standards, primarily in the information technology area where about 35 consortia standards have been noted.

5. Identification of voluntary consensus standards that have been substituted by your agency for government-unique standards during the reporting period as a result of an agency review under section 15b(7) of the Circular.

NONE

6. An evaluation of the effectiveness of Circular A-119 policy and any recommendations for changes to the Circular.

OMB A-119 continues to be adequate.

You may also wish to report:

7. Any conformity assessment activities in which your agency has been involved in the reporting period as described in the Federal Register, Vol. 65, No. 155, Thursday, August 10, 2000, Guidance on Federal Conformity Assessment Activities;

Same Report – *this is essentially unchanged from previous years.*

8. Examples or case studies of your agency's standards successes.

ATTACHMENT 1
STANDARDS DEVELOPMENT AGENCIES
WITH DOE PARTICIPATION

AABC
AAMA
AASHTO
ACI
ACS
AIHA
AIIM
AISC
AISI
AMA
AMCA
ANS
ANSI
APHA
API
AREA
ARI
ARMA
ASCE
ASHRAE
ASME
ASNT
ASQ
ASTM
ATA
AWS
AWWA
BIA
BOCA
CGA
CISCA
CMA
CMAA
CSAO
CTI
EIA
FMRC
GA
GANA
IAEA
IAPMO
IATA
ICAO

ICBO
ICRP
ICRU
IEC
IEEE
IESNA
IME
ISDSI
ISO
ITE
MBMA
MLSFA
NAAMM
NAPHCC
NCMA
NCRP
NCSL
NEMA
NFPA
NGWA
NISO
NRCA
NSC
NWDA
PCA
PCI
PDCA
PTI
RFCI
SAE
SBCCI
SDI
SDI
SFPE
SJI
SMA
SMACNA
SPRI
SSFI
SWI
UL
WEF